



PATENT APPLICATION

#14  
6/25/02  
R1149d

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Atty. Dkt. No.: 2288-006

Charles J. STOUFFER et al.

Serial No.: 09/434,507

Group Art Unit: 3727

Filed: November 5, 1999

Examiner: S. Pollard

Title: HIGH TEMPERATURE ISOSTATIC  
PRESSURE BONDING OF HOLLOW  
BERYLLIUM PRESSURE VESSELS  
USING A BONDING FLANGE

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APPELLANT'S REPLY BRIEF UNDER 37 C.F.R. § 1.193  
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Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

In reply to the Examiner's Answer (Paper No. 12, mailed  
April 17, 2002), Appellant submits the following responsive  
arguments:

I. ARGUMENTS

The Examiner contends that the Geiser, Jr. et al. reference  
discloses diffusion bonding. The Examiner further contends that  
the diffusion bonding allegedly disclosed by Geiser, Jr. et al.  
occurs across the entire portion where the two steel flanges make  
contact. Appellant notes that the evidence in the record does not  
support such a conclusion.

By its plain language, this reference does not disclose

Date: June 17, 2002

Noted  
No response deemed  
necessary

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diffusion bonding. Nowhere within its four corners does Geiser, Jr. et al. mention the term "diffusion bonding." Rather, this reference consistently refers to "welding." Persons having ordinary skill in the metal working art understand welding to be a distinct process from diffusion bonding. Welding joins two or more metal members by melting them together. Diffusion bonding does not melt the metal parts being joined. The meaning of these art-accepted terms is not disputed; the Examiner has not disputed Appellant's explanation of the technical distinction between welding and diffusion bonding.

In support of his contention that the Geiser, Jr. et al. reference discloses diffusion bonding, the Examiner draws attention to a passage of the reference (col. 3, lines 5-19) that describes "sufficient force to deflect," "create a pressurized area," and "heated particles of the different members in the pressurized areas are thus forced into intermingling relation." However, such descriptive language is not necessarily a description of diffusion bonding. The described attributes (heat, pressure, force, deflection, intermingling) are entirely consistent with welding. The Examiner's conclusion that this is a description of diffusion bonding is belied by the fact that the quoted passage clearly says that it is "welding" that is being effected by the process.

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The Examiner also draws attention to the passage at col. 4, lines 32-40 of Geiser, Jr. et al. in support of his position. It is clear that this passage cannot be interpreted to evince diffusion bonding since it actually refers to fused material as being "molten."

Importantly, since the welding wheels of the Geiser, Jr. et al. seam welding apparatus roll about the periphery of the tank being formed (refer to col. 3, lines 5-9), it logically follows that this seam formation process will be quite quick. This makes it pretty clear that whatever is being taught, it certainly is not diffusion bonding because diffusion bonding is not quick. Diffusion bonding is accomplished by maintaining even pressure application around the entire joint circumference at an elevated temperature for several hours. The rolling weld process disclosed by Geiser, Jr. et al. for progressively joining around the joint is not a static force application and it would work much too fast to be consistent with diffusion bonding.

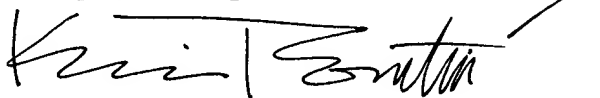
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II. CONCLUSION

For the above reasons, in addition to the arguments set forth in Appellant's Brief on Appeal, Appellant respectfully submits that the rejection should be reversed.

This Reply Brief is being filed in triplicate.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kevin L. Pontius", with a long horizontal line extending from the end of the signature.

Kevin L. Pontius  
Reg. No. 37,512

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